Report 10376A March 1996

> GENCORP AEROJET

Advanced Microwave Sounding Unit-A (AMSU-A)

**Developer Derating Policy** 

11/ 17/6 20176

Contract No. NAS 5-32314 CDRL 502

## Submitted to:

National Aeronautics and Space Administration Goddard Space Flight Center Greenbelt, Maryland 20771

# Submitted by:

Aerojet 1100 West Hollyvale Street Azusa, California 91702

Aerojet

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### 1. SCOPE

This Developer Derating Policy (DDP) is submitted in accordance with the deliverable data requirements of 5.2.3 of GSFC-S-480-79, Performance Assurance Requirements (PAR) for Earth Observing System (EOS) and Meteorological Satellites Project (METSAT), Advanced Microwave Sounding Unit-A (AMSU-A) Program, Contract No. NAS 5-32314, CDRL 502.

This report is submitted to communicate the piece part derating guidelines which will be used on AMSU-A.

### 2. REQUIREMENTS

The derating requirements/factors tabulated in Appendix B of the Goddard Space Flight Center Preferred Parts List (GSFC PPL) and Appendix A of MIL-STD-975 (NASA Standard Electrical, Electronic, and Electromechanical (EEE) Parts List) shall be used. Where differences occur, the PPL derating factors shall have precedence over the derating factors of MIL-STD-975. When a derating factor is not provided in either the PPL or MIL-STD-975, the GSFC EOS Parts Branch Specialist shall be consulted. In addition, the PAR stipulates that all piece parts shall function at or above twice the expected ionizing radiation dose.

#### 3. VERIFICATION

The derating requirements of the PPL and MIL-STD-975 are assured via design reviews held for each assembly, and the Parts and Devices Stress Analyses (CDRL 109) which provide electrical stress analysis of the AMSU-A circuit designs and EEE parts and devices. Verification that each part will function at the specified radiation level shall be verified by either test or analysis.

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